# HIDDEN VISION

WWW.HVTVMOUNTS.COM

## DRAWINGS FOR BUILT-IN APPLICATION MODEL: M3BI-55-8.2.2

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\*\* Refer to the document named "M3BI-55-8.2.2 INSTALLATION INSTRUCTIONS"

### **Recommended steps to understand the HVTV Flip-Around TV Mount**

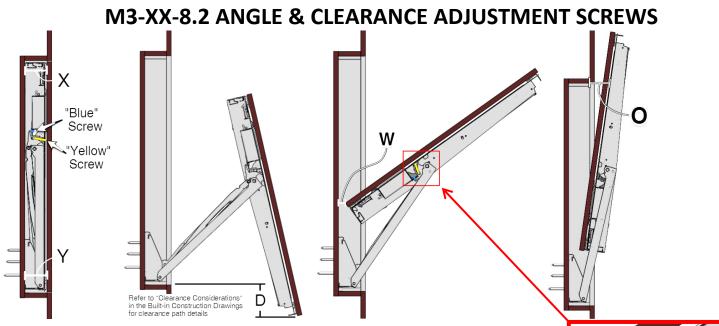
### Anyone involved should take the time to view the following info and contact tech support with any questions 208-287-8882 x 2

- Step 1: Watch videos of example built-in projects. Link to YouTube playlist: <u>https://bit.ly/fabipl</u>
- Step 2: Watch Installation Overview VIDEO <u>https://bit.ly/fainstalloverview</u> (Note: This video is meant to prime you with a basic understanding of the installation process. Refer to your model's instructions book and these construction drawings for specific details & dimensions)
- Step 3: Refer to the Flip-Around installation manual for model M3BI-55-8.2: <u>https://bit.ly/3crUPZ9</u>
- Step 4: Look over the following drawings and notes.
- Step 5: Purchase and get the product in the hands of your carpenter. Having the product in hand during construction is not required but it can be helpful.

### Additional resources:

• QUESTIONS? Please contact us freely! We can surely help. If needed, we are happy to video chat to answer questions efficiently and throughly. Contact Mark with Hidden Vision 208-287-8882 x2.

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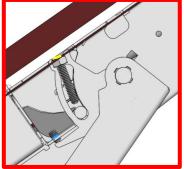


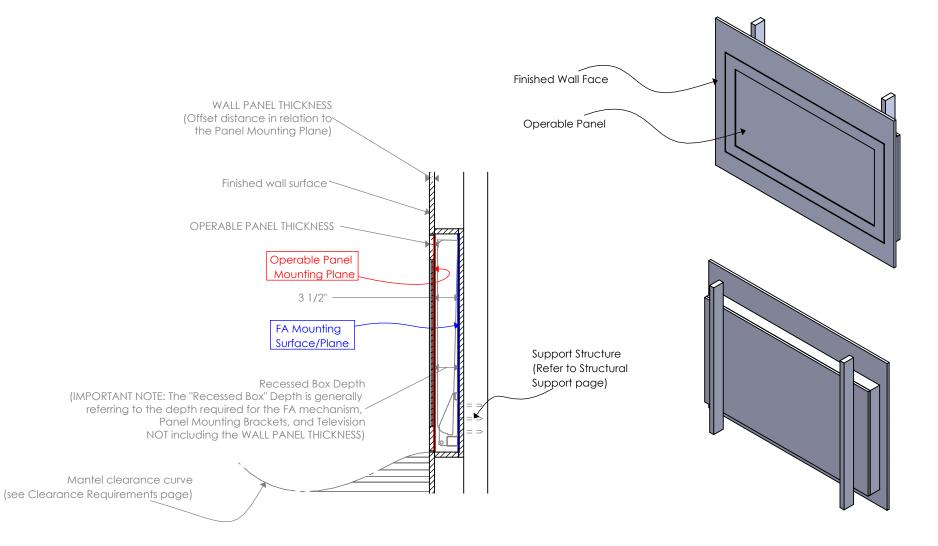
Each arm has two independent adjustment screws. Yellow, adjusts the closed position angle and Blue adjusts the open position angle as well as the clearance. Note: The true results of your adjustment will not be seen until the mount is operated once after the adjustment is made.

	Х	Y	D	W	0
Loosen Yellow Screws (CCW)	+	-	nc	nc	nc
Tighten Yellow Screws (CW)	-	+	nc	nc	nc
Loosen Blue Screws (CCW)	nc	nc	nc	+	+
Tighten <b>Blue</b> Screws (CW)	nc	nc	nc	_ *	-

+ = Dimension increases - = Dimension decreases **nc** = No Change

- \* Careful! Tightening the Blue screw too much can result in contact with the wall during rotation.





Clearance Gap around panel: As the operable panel flips around it will enter the recessed opening as it approaches the TV viewing position. Therefore, the recessed opening must be larger than the operable panel. (see clearance considerations sheet)

How's the gap look? Here are some examples for visual references.

- 50" TV, 3/16" gap + 3/4" to the stone, dark Picture Frame contrasted on light stone, - https://youtu.be/LLVYAPLQkr0?t=1s [Note: If you're using dark material the gap is almost invisible]

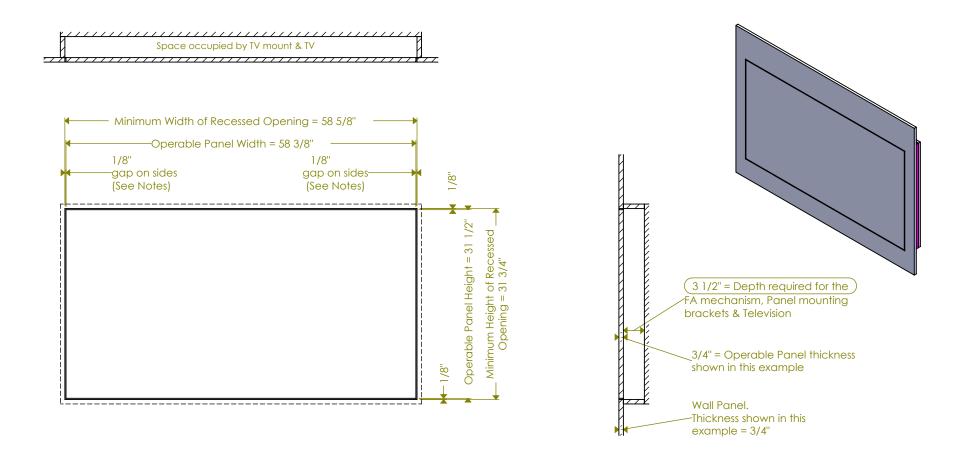
- 65" TV, 1/4" gap, Classic White inset cabinetry - https://youtu.be/8B6eU2ddoM0

- 43" TV, 5/16" gap, Classic White inset cabinetry - https://youtu.be/9d2SzdOw8LQ

- 55" TV, 3/4" gap, Gray modern panel wall - <u>https://youtu.be/U4COiLB8Vpc</u> (Note: The Flip-Around mount shown in this video is an old version (v.4)) (youtube playlist of built-in projects: https://bit.lv/fabipl)

Minimum Gap (Sides): As the operable panel flips around it will exit and re-enter the recessed opening. Therefore, the recessed opening must be larger than the operable panel. (see clearance considerations page) We recommend a minimum 1/8" gap on the sides.

Minimum Gap (Top & Bottom): Maintaining an even gap all the way around looks best. However, if your design requires it, it is possible to have a zero gap at the top and bottom as long as the panel is beveled so it cannot bind on the top or bottom. Talk to us for more details on this.



Note: These drawings are offered as a courtesy to be used as a guide. Please speak with Hidden Vision to go over any changes you'd like to make to this basic design.

**Panel Weight:** We use very strong motors so the panel weight is flexible. Most of the weight is countered with springs which we calibrate in manufacturing. If your design requires it, we can customize the spring setting. Let us know what your plans are for our product and we can advise.

**Panel Width & Height**: The panel width and height shown are the minimum recommended. The **panel width** can be increased with little consequence (assuming you also increase the width of the recessed opening). The **panel height** can be increased however keep in mind that 1" increase in panel height = 2" increase in total vertical clearance required (see Clearance Considerations)

Panel Thickness: You can use a panel thicker than 3/4". If you do, it's a good idea to talk with Mark. There are adjustment screws that allow for on site adjustment to accommodate panels of varying thickness. Talk to Mark for more details on this.

Attaching Panel to TV Mount: DO NOT permanently fasten the panel to the TV mount using screws or adhesive. Use the supplied PANEL MOUNTING HARDWARE designed to allow removal of the panel if ever required in the hidden position.



Note regarding panel weight: The weight of the TV must be considered when calculating the maximum allowable cover panel weight. This model (M3-55-8.2) can accommodate a maximum weight (Television + Operable Cover Panel) of 80 lbs.

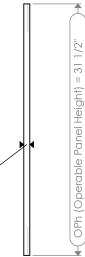
For reference:

- o Most 55" TVs weigh between 30 55 lbs
- Panel weight, if cut to the recommended height & width shown:
- 3/4" Plywood = 28 lbs. / MDF = 40 lbs.
- 1/2" Plywood = 19 lbs. / MDF = 27 lbs.
- 3/8" Plywood = 15 lbs. / MDF = 21 lbs. (Double layer 5" along the perimeter to allow adequate thickness for hardware attachment)

Find plywood weight calculator at www.theplywood.com

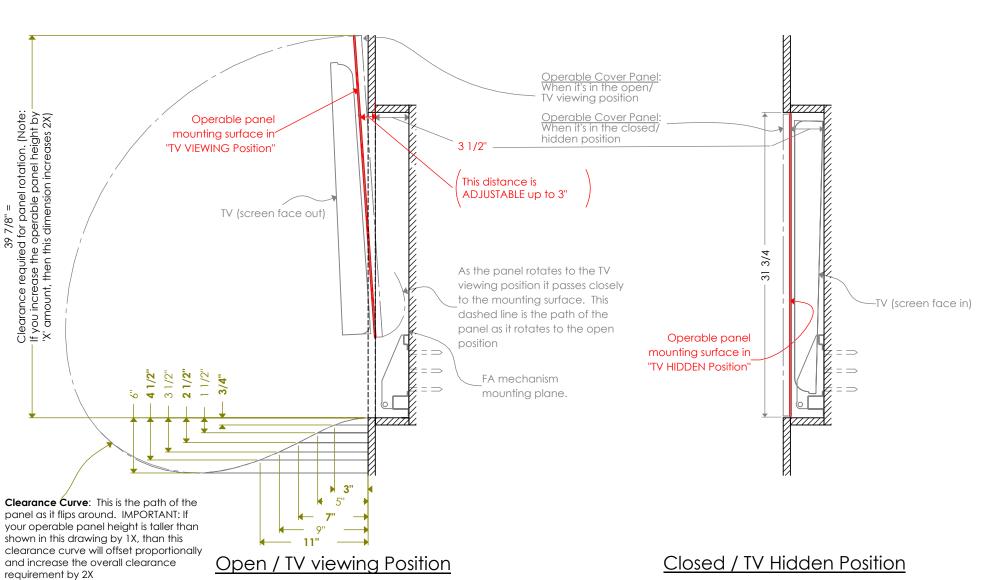
Note: Increasing the panel height will shift the center of mass outside the rotating point, thus reducing the maximum weight capacity.

3/4" Shown in this example. Refer to 'Clearance" page / for more info regarding panel thickness



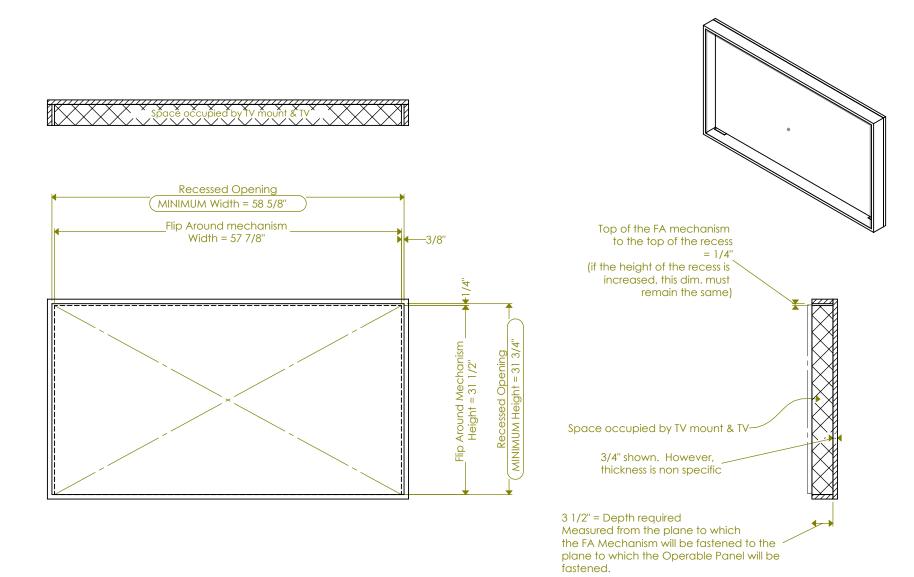
Clearance considerations:

- If you are considering increasing the panel height you need to increase the overall clearance required by 2x. Since the Operable Panel flips around, adding 1" of height to your panel will result in 2" additional vertical clearance required.
- Panel thickness is negotiable, however, in general, the total thickness of the Operable Panel + the Wall Panel should not exceed 3" without consulting with us.



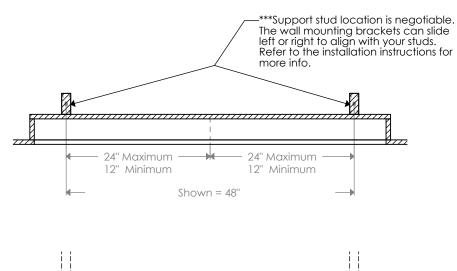
### Size of recess & placement of Flip-Around mechanism within the Recessed Box

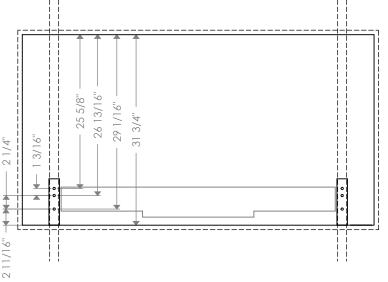
<PARA >Increasing the recessed box height for a sound bar or other reason? Consider the following: Regardless of the recessed box height, the FA mechanism must be placed in relation to the TOP of the recessed box.

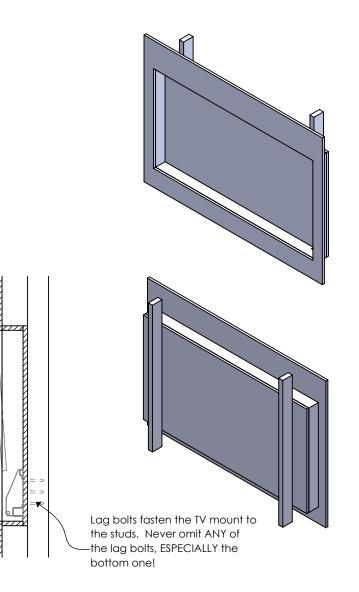


#### Structural Support:

- If your situation requires alternative support materials & methods please contact us to discuss. Stud Location: The Wall Mount Brackets are adjustable to allow alignment with varied stud location. Refer to the Flip-Around Installation Instructions for the Stud Max and Minimum distance from center. •



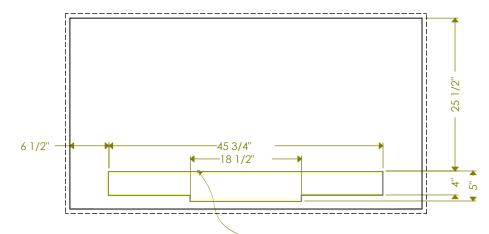




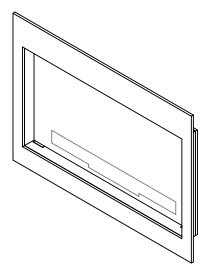
These drawings are offered as a courtesy to be used as a guide. Any changes can have unintended consequences. Please speak with Hidden Vision to go over any changes.

To understand the electrical requirements it is best to start by watching the install video then look over the

How are cables routed from the TV to the wall? You can route up to 3 cables per side. The cables run from the TV, through the arms, and can enter the wall anywhere within the area outlined in yellow below. A cover plate will be



This outline represents the location where electrical boxes can be placed. Electrical boxes can be located anywhere within this outline. (refer to the instructions for more specifics regarding cable box location and types)



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To understand the electrical requirements it is best to start by watching the install video (https://youtu.be/GM1LVz5AKGg) then look over the instructions.

### Cable Access / Power Requirements

Numerous products and combinations can be used, however, there are specific details that must be observed.

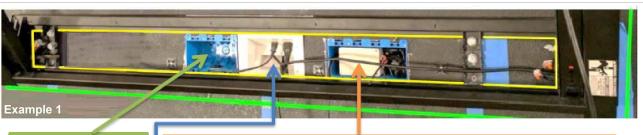
1) Within the Yellow outlined area nothing can protrude more than 1/2" from the wall/mounting surface.

2) Within the area BELOW the yellow outlined area no objects should protrude more than 3/16".

3) Within the area ABOVE the yellow outline no objects should protrude from the wall if avoidable. If not avoidable you can (in most cases) get away with up to 1/4". Please contact us with questions. We can help.

Here are a couple options we've found to work well. Or SINCE YOU'RE CUSTOMIZING A BUILT-IN consider designing a accessible panel close by where the electronics could be stored. Then just run a conduit to that location.

*Electrical should be performed by a licensed electrician. It is your responsibility to verify all electrical components and installation methods meet your local building, safety and fire codes.* 



#### MOTORIZED models:

If you follow

You'll likely need

somewhere to stuff

extra cable, Installing

WORK" box (shown

accommodate this.

3-GANG "OLD

here) is an easy way to

example 1

a

Motorized models have a power supply and controller box that must be housed in the wall or close by\*. These boxes fit nicely in a **4-GANG "OLD WORK**" electrical box as shown here.

\*You can relocate the power supply & controller box to a nearby cabinet or closet if you want. HOWEVER, you must use the appropriate gauge wire to avoid 'Voltage Drop' (reduced power to the motors.)

(2 wires per motor = 4 wires total) Up to 20' extension = 14AWG X 4 Up to 35' extension = 12AWG x 4 Up to 50' extension = 10 AWG x 4

#### ALL MODELS require a RECESSED Outlet of some kind because the cover plate sits 1/2" from the wall.

Option 1: Power Bridge Two-Pro-12 (found on the Accessories page of our website. <u>www.HVTVmounts.com</u>)

**Option 2:** (shown above) DataComm 45-0071-WH or 45-0024-WH. You can order this item from Amazon by searching the part numbers above. Caution: You can find items that look similar to this at your local hardware store. However, they are likely larger than the example shown above ( $5'' \times 7''$ ) and may not fit well.

**Option 3: Need to pick something up today?** You can find the following at your local hardware store. "Duplex RECESSED Outlet," "1-Gang Old Work box," and "Recessed Wall Plate for low voltage cables."

**Option 4:** (shown below) You can use an in-wall, flush mount, junction box similar to the one shown below. **Caution: Potential interference with picture frame!** As the mount flips around and approaches the TV viewing position, the picture frame will pass closely to the wall/mounting plane. Any Make sure nothing protrudes from the wall ABOVE the YELLOW outlined area. Contact us for more info.

